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ONE NEW SPECIES AND THREE NEW RECORD SPECIES OF THE GENUS *DIORYCTRIA* ZELLER IN CHINA (LEPIDOPTERA, PYRALIDAE, PHYCITINAE)

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Abstract This paper deals with four species of the genus *Dioryctria* Zeller from China. *Dioryctria fanjingshana* Li, sp. nov. is described as new to science, and *D. resiniphila* Segere et Pröse, *D. aulloi* Barbey and *D. reniculelloides* Mutuura et Munroe are newly recorded for China. Photographs of the adults and the genitalia are provided.

Key words Lepidoptera, Pyralidae, Phycitinae, *Dioryctria*, new species, China.

Dioryctria Zeller, 1846 is composed of 78 species belonging to ten species-groups. It is of great economic importance, distributed mainly in the subtropical region of the Northern Hemisphere. Prior to this study, 12 species under four species groups were recorded in China. In this paper, we describe one new species and report three new record species for the Chinese fauna. The type specimens are deposited in the Insect Collection, Nankai University, Tianjin, China.

Dioryctria Zeller, 1846

Dioryctria Zeller, 1846: 732. Type species: *Tinea abietella* Denis & Schiffermüller, 1775.

Pinipestis Grote, 1878: 19. Type species: *Nephopteryx zimmermani*, Grote, 1877.

Osrisia Ragonot, 1893. In Romanoff: 525. Type species: *Myelois robiniella* Millière, 1865.

Dioryctriodes Mutuura & Munroe, 1974: 937. Type species: *Dioryctriodes daelei* Mutuura & Munroe, 1974.

Dioryctria resiniphila Segere et Pröse, **1997** (Figs. 1, 5, 9)

Dioryctria resiniphila Segere et Pröse, 1997: 58.

Adult (Fig. 1). Wing expanse 26.0-30.0 mm.

Male genitalia (Fig. 5). As illustrated.

Female genitalia (Fig. 9). As illustrated.

Material examined. 2 ♂♂, 5 ♀♀, Gongliu, Xinjiang Autonomous Region, 1 500 m, 27-28 July 1994, leg. LI Hou-Hun and QIN Hong-Yan.

Host plants. *Abies cephalonica* Louden; *Abies* sp.

Distribution. China (Xinjiang); Greece.

Remarks. This species is very similar to *Dioryctria aulloi* Barbey, 1930 in appearance and in genitalia. They can be separated from each other by the following characters: in *D. resiniphila*, the ventral spine on the distal process of costa exceeding end of costa in male genitalia, and the female ductus bursae with posterior 1/5-1/4 sclerotized laterally, with rumples throughout posterior 2/3; in *D. aulloi*, the ventral spine on the distal process of the male costa not exceeding end of costa, and the female ductus bursae with posterior 2/3 sclerotized laterally, lacking distinct rumples.

Notes. This species is new record to China. Ground color of the species is deeper in male than in female.

Dioryctria aulloi Barbey, **1930** (Figs. 2, 6, 10)

Dioryctria aulloi Barbey, 1930: 69.

Adult (Fig. 2). Wing expanse 26.5-31.5 mm.

Male genitalia (Fig. 6). As illustrated.

Female genitalia (Fig. 10). As illustrated.

Material examined. 1 ♂, 1 ♀, Dadongshan, Lianzhou, Guangdong Province, 650 m, 23 June 2004, leg. ZHANG Dan-Dan.

Distribution. China (Guangdong); India, Spain.

Remarks. This species is characterized by the triangular ventral spine on the distal process of the costa in male. It is close to *D. resiniphila*, and the differences between them have been stated above.

This species is new record to China.

Dioryctria reniculelloides Mutuura et Munroe, **1973** (Figs. 3, 7, 11)

Dioryctria reniculelloides Mutuura et Munroe, 1973: 654.

Adult (Fig. 3). Wing expanse 22.0-27.0 mm.

Male genitalia (Fig. 7). As illustrated.

Female genitalia (Fig. 11). As illustrated.

Material examined. 1 ♂, 1 ♀, Dailing, Heilongjiang Province, 390 m, 23 July 1963, leg. BAI Jiu-Wei.

Host plants. *Picea glauca* (Moench) Voss, *Pinus* sp., *Pseudotsuga menziesii* (Mirbel) Franco.

Distribution. China (Heilongjiang); Canada.

Remarks. This species is similar to *D. schuetzeella* Fuchs, 1899 superficially and internally, but can be distinguished from it by the male costa with distal process

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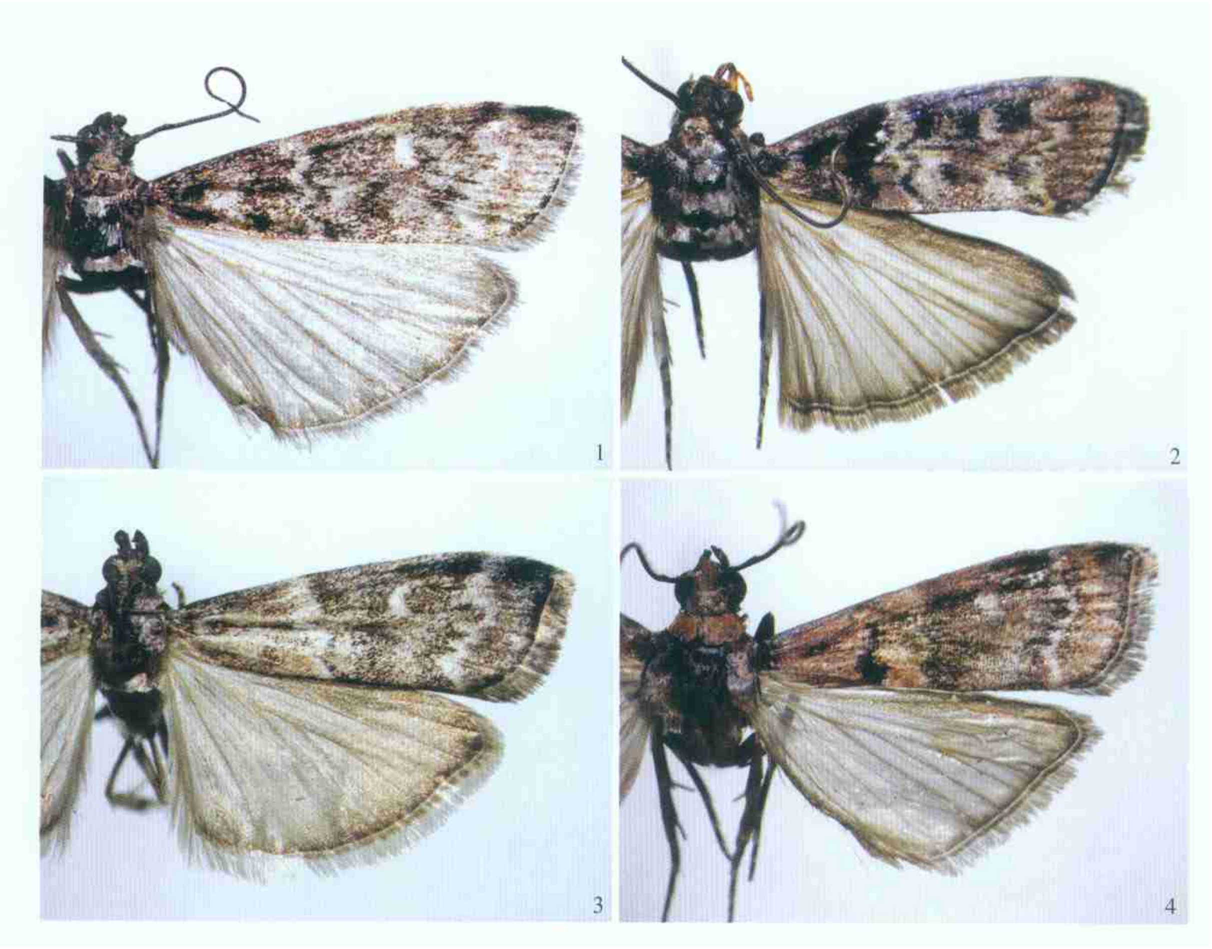


Figs. 1-4. Adults of *Dioryctria*. 1. *D. resiniphila* Segere et Pröse. 2. *D. aulloi* Barbey. 3. *D. reniculelloides* Mutuura et Munroe. 4. *D. fanjingshana* Li, sp. nov.

longer, the ventral part of the valva narrowed distally, and the sclerotized area of the female ductus bursae narrower and longer.

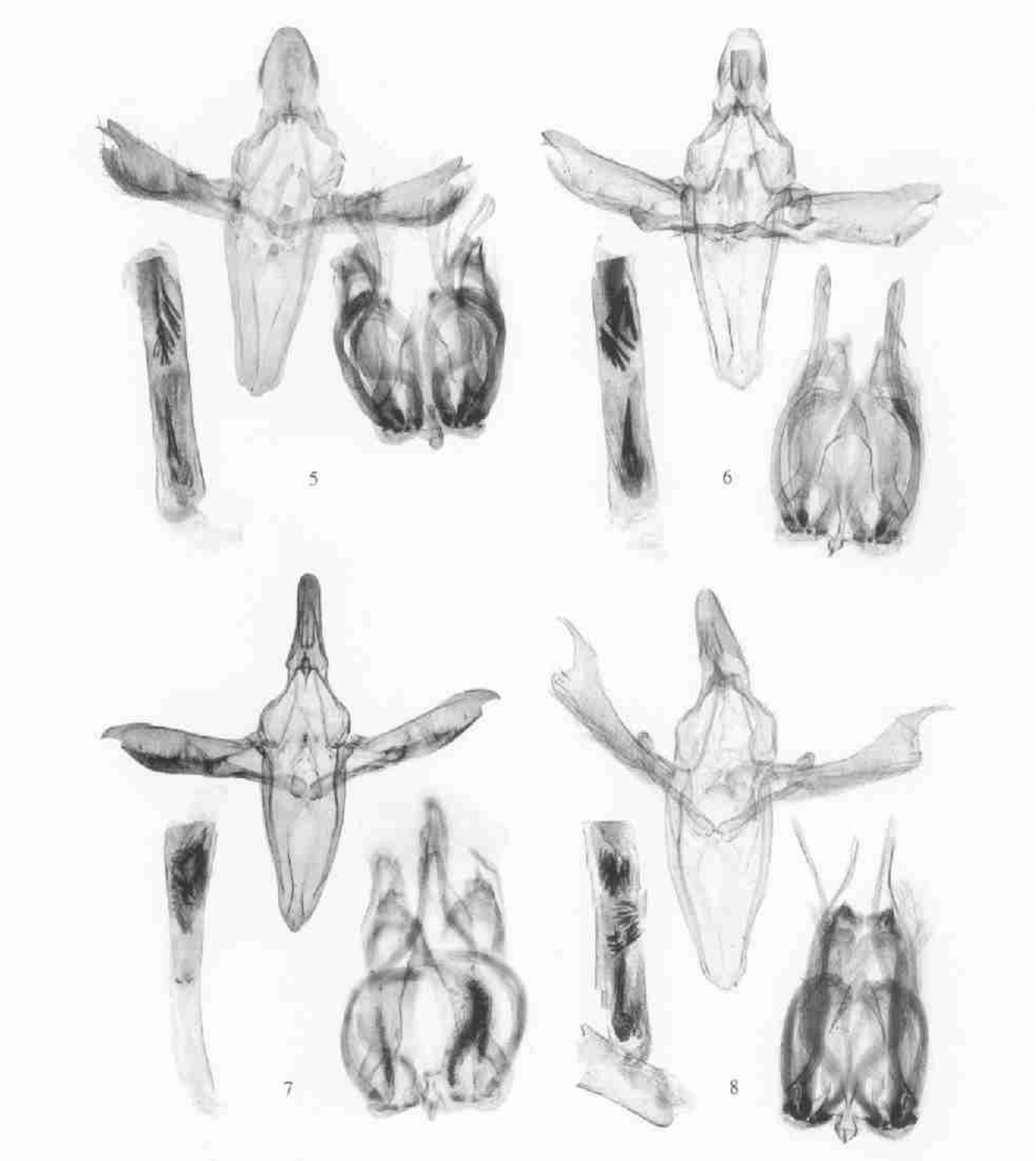
This species is new record to China.

***Dioryctria fanjingshana* Li, sp. nov.** (Figs. 4, 8)

Diagnosis. This new species is similar to *D. rubella* Hampson, 1901 superficially, but differs from it in the forewing without grayish white spot near ventral margin between antemedial and postmedial lines; the male uncus triangular, the valva with longitudinal distal ridges distributed through ventral 1/3, and the dorsal part of valva with distal process acute and curved apically. In *D. rubella* Hampson, the forewing has two grayish white spots near ventral margin between antemedial and postmadial lines; the male uncus is rectangular, with apex concave slightly at middle, the longitudinal distal ridges of valva are distributed through ventral 3/5, and the distal process of the dorsal part of valva is rounded apically.

Holotype ♂, Mt. Fanjing (108°42′N, 28°19′E), Guizhou Province, 530 m, 3 June 2002, coll. WANG Xin-Pu, genitalia slide No. KDH05229. Paratypes: 2 ♂♂, same data as for holotype.

Description. Adult (Fig. 4). Wing expanse 22-26 mm. Head black, yellowish brown between antennae. Antenna yellowish brown; scape black dorsally; flagellum with several basal segments black, the remainders with pale ringes on dorsal surface; ventral surface densely ciliate. Labial palpus ascending over vertex; brown, mixed with grayish white on first and second segments. Thorax blackish brown; patagium reddish brown; tegula blackish brown in basal half, becoming grayish brown tinged with pale reddish brown and grayish white in distal half. Forewing reddish brown, suffused with dark brown and grayish white, with dense dark brown scales between antemedial and postmedial lines, blackish brown at base and on costa; moderate black spot at base of cell; subbasal line grayish white, unconspicous, with two black tufts of erect scales situated on its outside, one above fold, the other below fold; antemedial line grayish white, sinuate slightly; discocellular stigma large, grayish white, elliptical; postmedial line grayish white, with two inward angles and one outward angle; terminal line blackish brown, diffused with grayish white along its inside; cilia smoky gray, with a white line at basal 1/3.



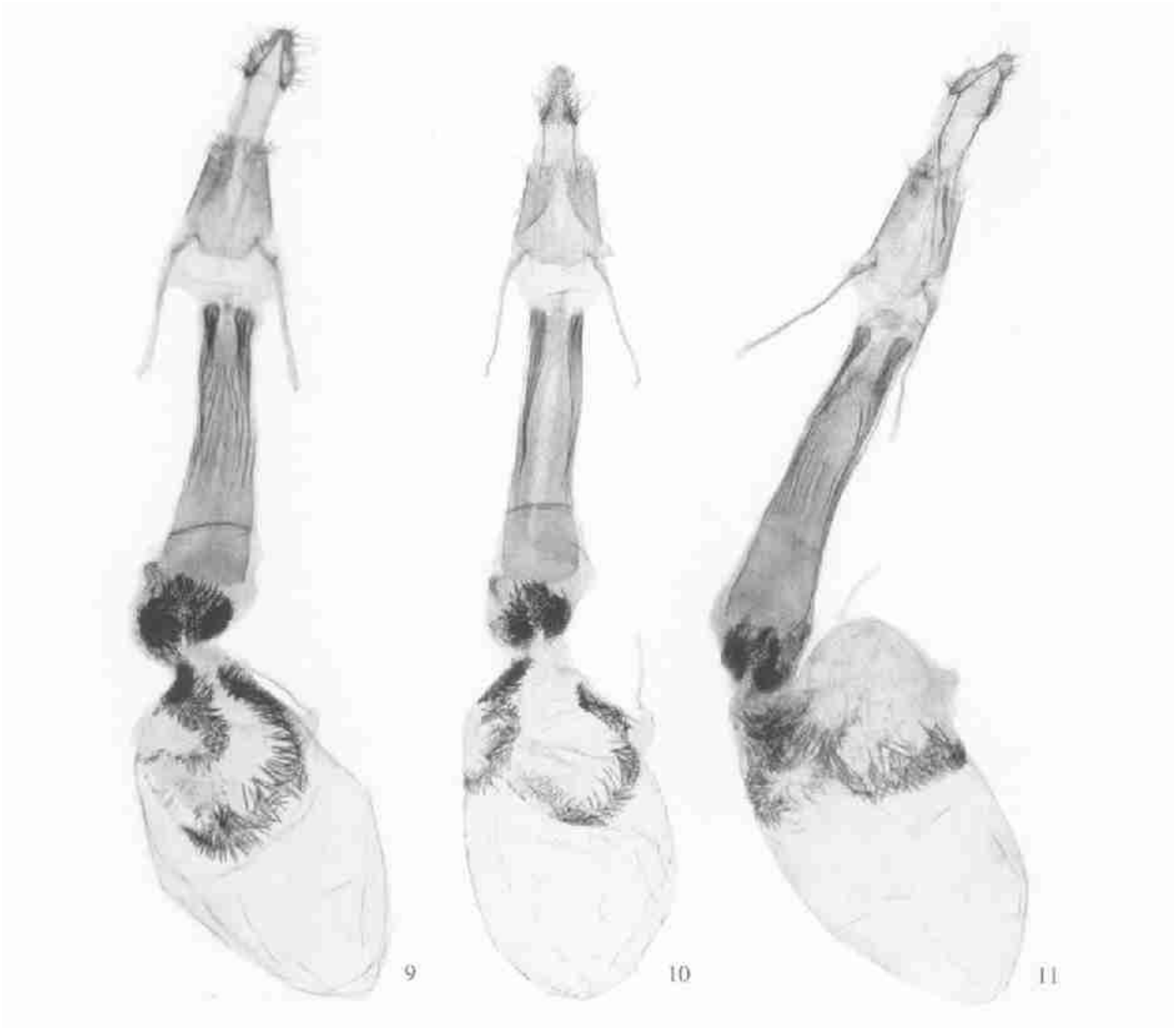
Figs. 5-8. Male genitalia of *Dioryctria*. 5. *D. resiniphila* Segere et Pröse. 6. *D. aulloi* Barbey. 7. *D. reniculelloides* Mutuura et Munroe. 8. *D. fanjingshana* Li, sp. nov.

Hindwing grayish brown; cilia gray.

Male genitalia (Fig. 8). Uncus more or less triangular, broad at base, narrowed slightly to rounded apex. Gnathos somewhat rhombic, about 1/4 length of uncus. Valva relatively narrow, with five longitudinal ridges distributed through ventral 1/3; costa extending to a long and thin distal process, tapering to a downward apex. Sacculus thin, about half length of valva. Clasper somewhat broad column-formed. Juxta rounded anteriorly, lateral arms fingerlike, curved inward. Vincullum broadly V-shaped. Aedeagus stout, strong basal cornutus with fine rumples at base, distal cornuti consisting of two clusters of numerous short spines.

Female. Unknown.

Etymology. The name of this species is derived from the type locality, Mt. Fanjing, Guizhou Province.



Figs. 9-11. Female genitalia of Dioryctria. 9. D. resiniphila Segere et Pröse. 10. D. aulloi Barbey. 11. D. reniculelloides Mutuura et Munroe.

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中国梢斑螟属一新种和三新纪录种（鳞翅目，螟蛾科，斑螟亚科）

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摘　要　记述中国梢斑螟属 Dioryctria Zeller1新种和3新纪录种：梵净梢斑螟 Dioryctria fanjingshana Li, sp. nov.（模式产地：贵州梵净山），树脂梢斑螟 D. resiniphila Segere et Pröse（中国新纪录种，国内分布：新疆巩留），管梢斑螟 D. aulloi Barbey（中国新纪录种，国内分布：广东连州大东山）和针枞梢斑螟 D. reniculelloides Mutuura et Munroe（中国新纪录种，国内分布：黑龙江岱岭）。文中给出了成虫和外生殖器照片。模式标本保存在南开大学昆虫标本室。

关键词　鳞翅目，螟蛾科，斑螟亚科，梢斑螟属，新种，中国.
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